

grows, and sometimes *Crepidula convexa* which I found quite abundantly on *Modulus floridanus*, has the color and something of the corrugation of that shell, so that at first glance it appears to be merely a patch.

What is the object of this singular species of imitation? I believe without exception it is a means of protection against the rapacity of boring molluscs; one of the tricks which nature is constantly exhibiting by which the "survival of the fittest" is attained. The shells of the young oyster on the *Cerithium*, the *Crepidula convexa* on the *Modulus*, the *Anomias* and *Crepidulas* on the *Pectens*, were in every case thinner than those on which they grew, hence more liable to be pierced by carnivorous molluscs—but by imitating the shells on which they lived they stood a better chance of deceiving their enemies, a better chance of self-preservation. Does this not look almost like intelligence, almost akin to what we call thought in man—like reason; like studying from cause to effect? and I believe that such variation as this is often perhaps one of the first steps towards the formation of a new variety, a variation which if continued by circumstances fixes certain characters that define a species, and that these characters remain permanently—often after the causes which produced them have passed away.

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**LIST OF SHELLS OF THE NEW JERSEY COAST SOUTH OF  
BRIGANTINE ISLAND.**

BY JOHN FORD.

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ED. NAUTILUS, Dear Sir:

As a list of the species of Mollusks found on the coast of New Jersey, South of Brigantine Island, may be of interest to your readers, I take the liberty of sending it.

If any others can be added it would be a pleasure to hear of them.

Yours truly,

JOHN FORD.

Phila. June 15th, 1889.

*Anomia ephippium*, Linn.

*Arca pexata*, Say.

*Arca ponderosa*, Say. (Fossil.)

*Arca transversa*, Say

- Astarte castanea*, Say.  
*Crepidula convexa*, Say.  
*Crepidula fornicata*, Linn.  
*Crepidula glauca*, Say.  
*Crepidula plana*, Say.  
*Columbella avara*, Say.  
*Columbella lunata*, Say.  
*Cytherea convexa*, Say.  
*Donax fossor*, Say.  
*Eupleura caudata*, Say.  
*Fissurella alternata*, Say.  
*Fulgur canaliculata*, Say.  
*Fulgur carica*, Gmel.  
*Fulgur perversum*, Linn. (Dead.)  
*Littorina irrorata*, Say.  
*Littorina littorea*, Linn. (Dead.)  
*Littorina palliata*, Say.  
*Lucina dentata*, Wood.  
*Modiola plicatula*, Lam.  
*Modiola tulipa*, Lam. (Anglesea.)  
*Mactra solidissima*, Chemn.  
*Martesia cuneiformis*, Say.  
*Melampus bidentatus*, Say.  
*Mya arenaria*, Linn.  
*Mytilus edulis*, Linn.  
*Nassa obsoleta*, Say.  
*Nassa trivittata*, Say.  
*Natica duplicata*, Say.  
*Natica heros*, Say.  
*Natica triseriata* Say. (young of *N. heros*.)  
*Ostrea borealis*, Lam.  
*Ostrea virginica*, Lister.  
*Pandora gouldiana*, Dall.  
*Pecten irradians*, Lam.  
*Petricola pholadiformis*, Lam.  
*Pholas crispata*, Say.  
*Pholas costata*, Linn.  
*Pholas truncata*, Say.  
*Raeta canaliculata*, Say.  
*Solecurtus costatus*, Say.

- Siliquaria gibba, Adams.  
 Solen ensis, Linn.  
 Tellina polita, Say.  
 Tellina tenera, Say.  
 Teredo navalis, Linn.  
 Urosalpinx cinerea, Say.  
 Venus mercenaria, Linn.  
 Venus mercenaria var. notata, Say.  
 Additional species found by other observers.  
 Anomia aculeata, Gmel.  
 Anomia electrica, Gld.  
 Bela harpularia, Couth.  
 Fasciolaria granosa, Brug.  
 Fusus tornatus, Gld.  
 Littorina rudis, Don.  
 Mactra lateralis, Say.  
 Macoma fusca, Say.  
 Mytilus hamatus, Say.  
 Sclalaria angulata, Say.  
 Sclalaria lineata, Say.  
 Sigaretus perspectivus, Say.  
 Solen viridis, Say.  
 Yoldia limatula, Say.

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#### A MAMMOTH LAND SNAIL.

In the *West American Scientist* for April, 1889, under the head of "A New Florida *Bulimulus*," follows the description of an alleged species of the group above named the dimensions of which are given as "length, 19 inches, diameter 8 inches." I don't believe that my esteemed friend Hemphill ever collected a land animal of the molluscan type quite as large as this. I wish that he had and I am sure if a beast of this size exists anywhere on the planet, it should when found be named for him, for I know of no man more worthy of such an honor. Let us return to the big *Bulimus* and consider its dimensions and what these figures mean:

*Bulimus oratus* of Müller, a Brazilian species "attains the length of six inches and is sold in the markets of Rio." It has an egg an inch in length when hatched, say the size of a robin's egg. With this for a standard, the nineteen inch fellow from Florida may be